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Knowing by Hand:

Embodied Knowledge in Higher Education in the Disciplines of Art and Design

What again shall we say of the actual acquirement of
knowledge? – is the body, if invited to share in the inquiry,
a hinderer or a helper?

Plato (*Phaedo*)¹

Forms of knowledge that are practical, situated and embodied have traditionally been valued, validated and supported in higher education in fine art and design. However, in the period since the early 1960's a number of socio-political and broader cultural developments have impacted on the status of such knowledge, with the result that it has become less and less of core concern within these disciplines. This phenomenon might be regarded as a re-entrenchment of older, sometimes latent, but nonetheless deep-seated attitudes, which valorise propositional and conceptual knowledge as more properly intellectual, more befitting the “scholastic view” – a disposition Pierre Bourdieu characterises as fundamentally antagonistic to practice, being “indifferent to context and practical ends, [a] distant and distinctive relation to words and things” and furthermore sustainable only in the context of school: “... that time liberated from practical occupations and preoccupations”².

Within the still emerging field of practise-based research in these disciplines there is considerable debate, indeed anxiety, regarding the validity of what are sometimes called “non-traditional” conceptions of knowledge, including the knowledge claims of practice as well as the role of the body and of emotion and perception in knowledge.

Higher education in art and design, particularly in Britain and Ireland, has in the intervening period seen considerable rationalisation. Schools of art and design, formerly rather autonomous institutions, have come under the auspices of the universities, where they compete for research funding with equivalent institutions in the disciplines of science and the humanities by applying to boards and authorities whose criteria, to a considerable degree, reflect the more established research culture of those disciplines. This state of affairs perhaps inevitably tends to promote the phenomenon of “academic drift,” a tendency to emulate the knowledge paradigms of mainstream academia. This economic impetus is combined with an academic one, brought about since the 1960’s by the introduction of BA, MA and MFA awards and, laterally and perhaps most problematically, PhD degrees in the area of practice-based and practice-led research. The criteria applied to PhD research is normally the contribution of new knowledge to a particular discipline. Therefore questions naturally arise as to what constitutes knowledge in the fine arts and design, as well as other questions concerning the knowledge claims of practice and the sometimes fraught relationship of practice to theory.

The “Linguistic Turn” has strongly impacted on the humanities in the latter part of this period, particularly under the influence of continental philosophy, with the effect of underpinning the hegemony of language-based propositional and conceptual paradigms of knowledge. While Jacques Derrida’s maxim “*il n’y a pas de hors-texte*” (there is nothing outside of the text), ought not, perhaps, be taken completely at face value, as Martin Jay points out: “everything that goes under the rubric of “vision” might be understood as a textual construct for Derrida rather than a perceptual experience.” Jay reminds us of Derrida’s statement: “I don’t know what perception is and I don’t believe that anything like perception exists.”³ However, the importance of perception for meaning, thought and knowledge is, as we shall see, gaining greater appreciation.

Yet another factor is the Duchampian legacy (Marcel Duchamp 1887-1968) and the ascendancy of approaches to art and art making which assert the primacy of the concept over the physical and situated aspects of the artwork, the practical means of its production and its mode of consumption. The impact of this on the teaching of art and design in higher education cannot be overestimated.

In conceptualist strategies the role of emotion and of perception, as well as the significance of the senses, are minimised. This ascendancy is evident in contemporary debate regarding practice-based research. The following is from a report of art educational theorist Sarat Maharaj’s address to the recent “Art and Wisdom” conference in Seville:

Maharaj considers that our approach to the type of knowledge that plastic arts generate, must assume that it does not deal with a retinal experience (the terminology of Duchamp), because since the beginning of the 20th century most aesthetic creation has incorporated formal and discursive elements that escape from the field of action of the surface of the eye.⁴

It is of significance that while certain philosophical traditions, notably Pragmatism and Phenomenology, are sympathetic to the truth claims of practice, conceptual art theory is more strongly indebted to analytic philosophy, which Mark Johnson has pointed out is in this regard singularly antipathetic. The artist Joseph Kosuth makes clear this indebtedness, with specific reference to A.J. Ayer's 'analytic method': "...the artist, as an analyst, is not directly concerned with the physical properties of things, He is concerned only with the way (1) in which art is capable of conceptual growth and (2) how his propositions are capable of logically following that growth... Accordingly, we can say that art operates on a logic."⁵

Kosuth's words are not intended merely to refer to a particular style or movement. For him, 'all art (after Duchamp) is conceptual (in nature) because art only exists conceptually'.⁶ In this view the role of the senses and perception within the visual arts is usurped by a "logic" grounded in propositional/conceptual meaning. As Johnson points out, much analytical philosophy is fundamentally compromised by a mind-body dualism.⁷ Kosuth minimises the role of the body in the processes of making and

appreciating art; the situated aspects of art are similarly negated. This eviscerated and detached conception of art appeals solely to the intellect – the Cartesian intellect isolated from both the body and the physical environment. Leading conceptual artist Sol LeWitt is even more emphatic in this regard:

Conceptual art is made to engage the mind of the viewer rather than his eye or emotions. The physicality of the three-dimensional object then becomes a contradiction to its non-emotive intent ... Anything which calls attention to, and interests the viewer in this physicality is a deterrent to our understanding of the idea...⁸

Rosalind Krauss described the dominance of the grid as a formal device in painting in the latter half of the twentieth century as: “what art looks like when it turns its back on nature.”⁹ Conceptual art, as outlined above, is what art looks like when it turns its back on the body.

Johnson characterizes analytical philosophy (instancing Ayer) as effectively bracketing emotive meaning as “non-cognitive.” In this way it retains what he sees as an: “...exclusive focus on the conceptual/propositional as the only meaning that mattered for our knowledge of the world. So-called emotive meaning had no place in science or any allegedly rigorous, empirically testable modes of knowledge.”

By contrast, Johnson holds that there is in fact ‘no cognition without emotion’ and, more significantly, that second-generation cognitive science suggests “meaning is shaped by the nature of our bodies, especially our sensorimotor capacities and our ability to experience feelings and emotions.”¹⁰ For Johnson as for John Dewey before him, meaning and knowledge are fundamentally situated – spatially, socially and emotionally. Moreover just as there is no radical mind/body separation, subject/object dualism is also false. As Eric Bredo explains: “put simply the inside outside relationship between person and environment is replaced by a part/whole relationship.”¹¹ Johnson posits an enactive and situated approach founded in Pragmatist philosophical theory whereby “subjects and objects are really just abstractions from the interactive of organism-environment-transactions.”¹²

There are, however, broader cultural imperatives at work. Richard Woodfield describes the instigation of PhD’s in fine art as resulting from ‘changes brought about by the decline of modernism and the current role of ‘theory’ in fine art practices: “From 1968, few artists in education could afford to be naïve in relation to ideology... Radicalism emerged as a deep requirement of interesting artistic practice and as ideology has to be articulated verbally to become recognised. Grunt practice garnered no respect.”¹³

Nevertheless, theorists as diverse as Martin Heidegger, John Dewey and Pierre Bourdieu recognise that, with regard to knowledge, the body primarily asserts itself through practice. Heidegger argued that, “the kind of care that manipulates things and puts them to use... has its own kind of knowledge.”¹⁴ The valorisation of conceptual, propositional

and language-premised knowledge represents for him a regrettable “absolutization of the theoretical”.

The dualism of theory and practice is, according to Dewey, rooted in Greek disenchantment with custom. Practice also shared in this “philosophic depreciation”, resulting in a “magnification in higher education of all the methods and topics, which involved the least use of sense-observation and bodily activity.”¹⁵ As he sees it, a fundamental dualism of leisure and labour is reflected in the Greek elevation of *bios theoretikos* over *bios praktikos*: “As livelihood and leisure are opposed, so are theory and practice, intelligence and execution, knowledge and activity. The latter set of oppositions doubtless springs from the same social conditions which produce the former conflict.”¹⁶

The socio-political origins of these oppositions are significant, as is their perennial reassertion in Western culture. It is to this that Bourdieu refers when he observes that “through oppositions like that between theory and practice, the whole social order is present in the very way that we think about that order.”¹⁷ Within mainstream Western epistemology association with physical labour carries negative connotations. However when we deny the body its role we ignore important aspects of all knowledge. Acknowledging this, Bourdieu defers to Pascal – who wrote that “we are as much automatic as intellectual” and this automation is *of* the body. As Bourdieu explains:

Pascal thus recalls the difference, which the scholastic existence leads one to

forget, between what is logically implied and what is practically entailed through the paths of habit which, 'without violence, without art, without argument, makes us believe things'. Belief, even the belief that is the basis of the universe of science, is of the order of the automaton, the body, which, as Pascal never ceases to remind us, 'has its reasons, of which reason knows nothing'.¹⁸

Somewhat ironically, while the disciplines of fine art and design are wracked with anxiety about the knowledge claims of practice and strive to accommodate dominant conceptual/propositional models of knowledge, these very models are being called into question by the philosophical traditions of Pragmatism and Phenomenology – traditions that are currently being invigorated by developments within research in cognitive science.

At the beginning of the twentieth century Dewey foresaw this, suggesting that all knowledge is embodied, enactive, and situated; he refers to nascent developments in this field:

No one who has realized the full force of the facts of the connection of knowing with the nervous system and of the nervous system with the readjusting of activity continuously to meet new conditions, will doubt that knowing has to do with reorganizing activity, instead of being something isolated from all activity, complete on its own account.¹⁹

Drawing and Knowing

It is useful at this point to focus on a practice that for almost four hundred years had been the linchpin of art and design education: the practice of drawing. Drawing in the Renaissance period was elevated, in the context of the philosophically complex Italian term *disegno*, to an overarching theory. The first Florentine art academy was tellingly named the *Accademia del Disegno* (1563). Ann Bermingham explains that *disegno* referred to drawing in two species, both to “the initial mental conception *and* to its linear execution” (my emphasis). She recognises however that the term left room for a polemically convenient “slippage... between conception and execution, or between design and drawing... [which was] essential in reorienting the visual arts away from craft and towards the more elevated and intellectual liberal arts”.²⁰

Georgio Vasari’s conception of *disegno* attempted to sidestep these dilemmas through a progressive holistic theory that integrated *disegno*’s intellectual and embodied aspects. However, his contemporary Federico Zuccaro criticised him for conflating *disegno interno* (presented in idealist, neo-platonic terms) with the practical and embodied aspects of drawing he termed *disegno esterno*, which he saw as “secondary and necessarily inferior.”²¹ Here we see played out in the context of Renaissance art theory the kind of perennial socially driven polemic recognised by both Dewey and Bourdieu.

David Rosand points out that as a concept *disegno* is “fraught with contradictions and ambivalences, located as it is at the very boundary between mind, hand, idea and form.”²² Dewey captures the *zeitgeist* in describing the similarly low status of another hands-on

practice – experimental science – within the scholastic universities of this period, wherein “the aristocratic tradition, which looked down upon material things and upon the senses and the hands, was still mighty.”²³

The intellectual excitement and artistic confidence of the Italian Renaissance then opened a space whereby the epistemological significance of intelligent making was given unprecedented recognition by theorists like Vasari in the face of more reactionary tendencies (Zuccaro’s theory laden-approach for example). This represents a conflict that Carl Goldstein describes as persisting within art and design education up to the Bauhaus period, i.e., a “problematizing of the relationship between theory and practice, and... a ‘deconstruction’ of theory in a resolutely dialectical engagement with it as something demonstrably different from practice.”²⁴

Dewey points out that “the brain is essentially an organ for effecting the reciprocal adjustment to each other of the stimuli received from the environment and responses directed upon it” and he cites examples of such ‘consecutive activity’ as a carpenter’s work or that of “an etcher at work [drawing] upon his plate.” The work is “continuous, consecutive, or concentrated in that each earlier act prepares the way for later acts, while these take account of or reckon with the results already attained – the basis of all responsibility.”²⁵ In like mind, Erik Breddo, working in the field of “situated cognition” emphasises the situated aspect of such work. Drawing, he tells us, is a drawn out affair:

...one draws, responds to what one has drawn, draws more, and so on. The goals for the continuation of the drawing change as it evolves and different effects become possible. Acting with the environment in this way contrasts with acting on it, because it presupposes that it will turn round and alter oneself in return... Such performances are often described in artistic terms acknowledging interplay, such as "concerted, "orchestrated," or "composed."²⁶

The actions of drawing are not merely an intelligent maker's skilled performance. Drawing can be a supremely complex embodied and situated process integrating action with intensely heightened perception. Johnson suggests that such a description fits many interrelated modes of what we call thinking: "perceiving," as he tells us, "is a mode of thinking, just as thinking appropriates the resources and mechanisms of perception."²⁷ Johnson cites Rudolph Arnheim, who held that thinking consists of "cognitive operations" which far from being at a remove from perception are in fact "the essential ingredients" of perception: "I am referring to such operations as active exploration, selection, grasping of essentials, simplification, abstraction, analysis and synthesis, completion, correction, comparison, problem solving, as well as combining, separating, putting in context."²⁸

This list mirrors quite precisely the operations of descriptive drawing. However, these insights regarding perception are hardly new. In *On Vision and Colour* (1816) Arthur Schopenhauer wrote the following

All intuitive perception is intellectual, for without the understanding we could never achieve intuitive perception, observation, the apprehension of objects. On the contrary, we would stop short at a mere sensation that might possibly have meaning in reference to the will as pain or comfort; but for the rest it would be a succession of states devoid of meaning and nothing like knowledge.²⁹

Alva Noë proposes an “enactive approach to perception” whereby perception is understood as not merely dependent on but indeed “constituted by” our possession of sensorimotor knowledge.³⁰ His theory presents vision as an interaction with the environment more analogous to a blind person using their stick than to understandings that appeal to “*internal representation*” or the “pictures in the mind” paradigm. Like Johnson and indeed Schopenhauer, Noë holds that “all perception is intrinsically thoughtful” and that “perception and perceptual consciousness are types of thoughtful, knowledgeable activity.”³¹

Noë radically challenges “intellectualism,” suggesting that all propositional knowledge, “knowledge-that,” is in fact dependent upon and “must be analysed in terms of a more basic and essentially active knowledge-how.” This assertion casts new light on the value of practical knowledge and its substructural relationship to propositional knowledge. Indeed Noë insists that the “key” to his theory is that perception “depends on the possession and exercise of a certain kind of practical knowledge.”³² This leads him to question common assumptions regarding the singularity of conceptual knowledge, an

attitude that tends to inform the “scholastic view” which clings to the above dualism. As he puts it:

The understanding of concepts is usually supposed to be a paradigm of personal-level accomplishment. But just as there is no sharp line between the personal and the subpersonal, so there may be no sharp line between the conceptual and the nonconceptual. Indeed, it may be that sensorimotor skills deserve to be thought of as primitive conceptual skills.³³

Noë thus dissolves the dualistic distinction between conceptual or propositional knowledge on the one hand and non-conceptual or perceptual, tacit knowledge on the other.

In a view that seems to support that of Noë, Mark Johnson argues that “mainstream philosophy of mind and language” represents an “impoverished view of meaning” which tends to “over-intellectualize many aspects of human meaning making and thinking.” He challenges what he describes as “the seriously mistaken claims that meaning and thought are exclusively conceptual and propositional in nature and that the apparatus of meaning, conceptualization, and reasoning is not intrinsically shaped by the body...”³⁴

Johnson, in his own work and that with George Lakoff, asserts that all of our knowledge

is fundamentally rooted in our bodily immersion in our physical milieu, from which, through a process he calls “metaphorical conceptualisation” – in keeping with Dewey’s principle of continuity – our more complex concepts evolve.³⁵ Johnson tells us that “every act of perception already involves a capacity for abstraction.”³⁶ In this regard he cites Arnheim’s comment that “in the perception of shape lies the beginning of concept formation.”³⁷

In the context of the above Pragmatist understandings, the claim of drawing as a practice to constitute a form of knowing may be seen as resting on its role as a situated, interactive process of enactive perception and concept generation.

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¹ Plato – *Phaedo* (Trans.) Jowett B. and Knight M. J. (1999) *The Essential Plato*. New York: Quality Paperback Book Club, p. 601.

² Bourdieu P. (2000) *Pascalian Meditations*. London and Cambridge: Polity Press, p. 13.

³ Jay M. (1994) *Downcast Eyes: The Denigration of Vision in Twentieth Century French Thought*.

Berkeley, Los Angeles and London: University of California Press, p. 497.

⁴ Summary of *An Unknown Object In Uncountable Dimensions: Visual Arts As Knowledge Production In The Retinal Arena*, Sarat Maharaj's contribution to the conference *(a-W) art and wisdom*, International University of Andalusia (UNIA), Seville (Spain). Date of lecture: Wednesday, 12th November, 2003.
<http://www2.unia.es/arteypensamiento03/ezine02/ezine09/frame.html>, accessed July 25, 2008.

⁵ Kosuth J. *Art After Philosophy*, Studio International 178, no, 915 (October 1969) Republished in: Stiles K. and Selz P. (1996) *Theories and Documents of Contemporary Art: A Sourcebook of Artists Writings*, Berkeley and Los Angeles: The University of California Press, p. 845.

⁶ Ibid. p. 843.

⁷ Johnson M. (2007) *The Meaning of the Body: aesthetics of human understanding* Chicago & London: The University of Chicago Press, pp. 9-15.

⁸ Le Witt S. *Paragraphs on Conceptual Art*, Artforum 5, No 10 (June 1967), p. 79. Republished in Stiles K. and Selz P., op. cit. (1996), p. 822.

⁹ Krauss R.E. (1985) *The Originality of the Avant-Garde and Other Modernist Myths* Cambridge, Massachusetts: The MIT Press, pp. 9-10.

¹⁰ Johnson M. (2007), op. cit. p. 9.

¹¹ Bredo E. 'Cognitivism, Situated Cognition and Deweyian Pragmatism' *The Philosophy of Education Society Yearbook 1994*. http://www.ed.uiuc.edu/EPS/PES-Yearbook/94_docs/BREDO.HTM, accessed July 26, 2008.

¹² Johnson M., op. cit. p. 67.

¹³ Woodfield R. 'The UK Fine Art PhD And Research in Art & Design' in *Lier en Boog*, Volume 18, Amsterdam, Rodopi, p. 105. Also on line at:

<http://www.ingentaconnect.com/content/rodopi/leb/2004/00000018/00000001>

¹⁴ Heidegger M. (1962) *Being and Time*, trans. Macquarrie J. & Robinson E., Oxford: Blackwell, p. 95. (Original in the German as *Sein und Zeit*, 1927).

¹⁵ Dewey J. (1916) *Democracy and Education* (from Columbia University website)

http://www.ilt.columbia.edu/publicAtions/Projects/digitexts/dewey/d_e/chapter20.html, accessed Apr 8, 2008.

¹⁶ Dewey, J., op. cit.

http://www.ilt.columbia.edu/text-versions/academic/texts/dewey/d_e/chapter20.html.

¹⁷ Bourdieu P. (2000) op. cit. p. 83.

¹⁸ Ibid. p. 12.

¹⁹ Dewey J. (1916) *Democracy and Education* (from Columbia University website)

http://www.ilt.columbia.edu/publicAtions/Projects/digitexts/dewey/d_e/chapter25.html, accessed Apr 8, 2008.

²⁰ Bermingham A. (2000) *Learning to Draw: Studies in the Cultural History of a Polite and Useful Art*. Newhaven and London: Yale University Press, p. 5.

²¹ Goldstein C. (1996) *Teaching Art: Academies and Schools from Vasari to Albers*, Cambridge, New York and Melbourne: Cambridge University Press, pp. 31-2.

²² Rosand D. (2002) *Drawing Acts: Studies in Graphic Expression and Representation* Cambridge: Cambridge University Press, p. 60.

²³ Dewey J. (1916) *Democracy and Education* (from Columbia University website)

http://www.ilt.columbia.edu/publicAtions/Projects/digitexts/dewey/d_e/chapter21.html, accessed April 8, 2008.

²⁴ Goldstein C. (1996) op. cit. p. 24.

²⁵ Dewey J. (1916) *Democracy and Education* (from Columbia University website)

http://www.ilt.columbia.edu/publicAtions/Projects/digitexts/dewey/d_e/chapter25.html, accessed April 8, 2008.

²⁶ Bredo E., op. cit.

²⁷ Johnson M., op. cit. p. 228.

²⁸ Cited in: Johnson M., op. cit. 227. Original: Arnheim R. (1969) *Visual Thinking* Berkeley and Los Angeles: University of California Press, p. 13.

²⁹ Schopenhauer A. (1816), (1994) *On Vision and Colours*, (ed.) Cartwright D.E. (trans.) Erget-Payne V. Providence, Rhode Island: Berg, p. 10.

³⁰ Noë A. 2004 *Action in Perception*, Cambridge MA and London: The MIT Press, p. 2.

³¹ Ibid. p. 3.

³² Noë A. 2005 “Against intellectualism,” *Analysis*, Vol. 65, Issue 288 (Oct 2005), Oxford: Blackwell, p. 287.

³³ Noë A. 2004 op. cit. p. 31.

³⁴ Johnson M. 2007 op. cit. p. 9.

³⁵ Ibid. pp. 10-11 & 167-168.

³⁶ Ibid. p. 228.

³⁷ Cited in: Johnson M. 2007 op. cit. 228. Original: Arnheim R. (1969) *Visual Thinking* Berkeley and Los Angeles: University of California Press, p. 27.